

8/7/1 (Item 1 from file: 5)  
DIALOG(R)File 5:BIOSIS Previews(R)  
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08964505 BIOSIS NO.: 199396116006

T-cell subsets in the cerebrospinal fluid and peripheral blood of  
**multiple sclerosis** patients treated with high-dose  
intravenous methylprednisolone.

AUTHOR: Frequin S T F M(a); Lamers K J B; Borm G F; Barkhof F; Jongen P J H  
; Hommes O R

AUTHOR ADDRESS: (a)Dep. Neurology, Univ. Hosp. Nijmegen, P.O. Box 9101,  
6500 HB Nijmegen\*\*Netherlands Antilles

JOURNAL: Acta Neurologica Scandinavica 88 (2):p80-86 1993

ISSN: 0001-6314

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: To determine the effects of high-dose intravenous methylprednisolone (MP) on lymphocytes and lymphocyte subpopulations in the cerebrospinal fluid (CSF) and peripheral blood (PB) in **multiple sclerosis** (MS) patients, we studied 67 patients with definite MS treated with MP. They were classified according to the disease course: 32 chronic progressive (CP) patients, 25 relapsing-remitting (RR) patients, and 10 patients with a chronic progressive disease course accompanied by relapses and remissions (CP + RR). MS patients were treated with 1000 mgr intravenous MP daily for 10 consecutive days. Before and after MP treatment we simultaneously studied CSF and PB CD3+, CD4+, CD8+, **CD20** and Ial+ cell subsets. Kurtzke's Expanded Disability Status Scale (EDSS) was used for clinical evaluation. Progression rate was defined as the ratio of EDSS to disease duration. Thirteen patients with lumbar disk herniation were investigated as controls. Before MP, we found in MS patients, especially in the CP group, significantly lower CD4+ T-cell percentages in the PB with respect to controls ( $p < 0.05$ ). The percentage of CD4+ T-cells in the CSF of MS patients was significantly higher compared with PB ( $p = 0.0001$ ), and tended to be higher than in controls ( $p = 0.072$ ). The CSF mononuclear cell counts were significantly correlated with higher percentages of CSF CD3+ ( $r = 0.40$ ) and CD4+ ( $r = 0.47$ ) T-cells and lower CSF CD8+ ( $r = -0.33$ ) T-cell percentages. B-cell percentages in the CSF were significantly elevated compared with controls for all MS groups. No relation could be obtained between T- or **B-cell** subsets and EDSS or progression rate. After MP, a significant **decrease** in PB CD8+ T-cell percentage and simultaneously an increase of the percentage CD8+ T-cells in CSF was noted in the entire MS group and in the CP and RR MS patients. Except for the CP + RR MS patients, CD4+ T-cell percentages in the PB or CSF showed insignificant changes. Our findings support the view that in MS MP might affect the inflammatory process of demyelination by a selective and dissociative effect on T-suppressor/cytotoxic cells in the PB and CSF.

8/7/2 (Item 2 from file: 5)  
DIALOG(R)File 5:BIOSIS Previews(R)  
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07845893 BIOSIS NO.: 000092116059

PREFERENTIAL REDUCTIONS IN LYMPHOCYTE SUB-POPULATIONS INDUCED BY MONTHLY

PULSES OF CHLORAMBUCIL STUDIES IN PATIENTS WITH CHRONIC PROGRESSIVE

**MULTIPLE SCLEROSIS**

AUTHOR: CHIAPPELLI F; MYER L W; ELLISON G W; LIAO D; FAH J L

AUTHOR ADDRESS: HARBOR-UCLA, F5, 1000 W. CARSON ST., TORRANCE, CALIF.

90509-1768, USA.

JOURNAL: INT J IMMUNOPHARMACOL 13 (5). 1991. 455-462. 1991

FULL JOURNAL NAME: International Journal of Immunopharmacology

CODEN: IJIMD

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: Thirty-three patients with chronic progressive **multiple sclerosis** (MS) were assigned to intervention groups receiving monthly pulses of chlorambucil (CB) for about one year. The monthly doses ranged from 0.4 to 1.5 mg/kg. Administration of CB resulted in preferential reduction in different lymphocyte subsets which was dose- and time-dependent. The number of **B-cells (CD20)** **decreased** more rapidly than NK-cells (CD16, CD56, CD16 + CD56+) or T-cell (CD3) and T-cells subsets (CD4 and CD8). At 1.2 mg/kg, CB administration resulted in a preferential drop of T-suppressor/cytotoxic cells (CD8) compared with T-helper cells (CD4), and of the less mature "virgin" CD4 cells (CD4+CD45RA+) compared with "memory" CD4 cells (CD4+CD45RA-). The expression of activation markers (transferrin receptor, CALLA, HLA-Dr and CD38[OKT10]) within CD4, CD8 or **CD20** lymphocytes was not altered by CB administration. Our data, which show that CB administration results in a preferential fall in B-cell numbers, contrast with the effects of long-term administration of the related immunosuppressive drugs, azathioprine and cyclophosphamide.

8/7/3 (Item 1 from file: 399)

DIALOG(R) File 399:CA SEARCH(R)

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134212719 CA: 134(15)212719b PATENT

Methods and compositions for immunotherapy of B cell involvement in promotion of a disease ~~condition comprising~~ multiple sclerosis

INVENTOR(AUTHOR): Barbera-Guillem, Emilio; Nelson, M. Bud

LOCATION: USA

ASSIGNEE: Biocrystal Ltd.

PATENT: PCT International ; WO 0113945 A1 DATE: 20010301

APPLICATION: WO 2000US23129 (20000823) \*US PV150256 (19990823) \*US PV152498 (19990902) \*US 643595 (20000822)

PAGES: 39 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A61K-039/00A; A61K-039/395B DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CR; CU; CZ; DE; DK; DM; DZ; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; TZ; UA; UG; UZ; VN; YU; ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

07335060 EMBASE No: 1998200307

Effect of high-dose methylprednisolone administration on immune functions in **multiple sclerosis** patients

Wandinger K.P.; Wessel K.; Trillenber P.; Heindl N.; Kirchner H.  
Dr. K.P. Wandinger, Inst. of Immunology/Transfusion Med., Univ. of Lubeck School of Medicine, Ratzeburger Allee 160, 23538 Lubeck Germany  
Acta Neurologica Scandinavica ( ACTA NEUROL. SCAND. ) (Denmark) 1998, 97/6 (359-365)

CODEN: ANRSA ISSN: 0001-6314

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 63

Objectives - To investigate the in vivo effect of corticosteroid pulse therapy on immunocompetent cells in 18 patients given methylprednisolone to treat an acute episode of MS. Material and methods - Blood was sampled before and after 3 days of methylprednisolone administration at doses of 1 g/day. Lymphocyte subtyping was performed and whole blood cell cultures were used to measure the cytokine producing capacity for interleukin-1 (IL-1), interleukin-2 (IL-2), interferon-gamma (IFN-gamma), tumor necrosis factor-alpha (TNF- alpha) and interferon-alpha (IFN-alpha). In addition, serum levels of the immunoglobulin classes IgG, IgA and IgM were determined. Results - Before treatment, production of IL-1 was significantly increased in MS patients as compared to healthy controls. After therapy, production of all cytokines was significantly **decreased**, whereas there were significant increases in the numbers of monocytes, neutrophils and T and **B lymphocytes**. Treatment had no effect on serum immunoglobulin levels. Conclusion - An important mechanism for the antiinflammatory effect of corticosteroids in MS results from a suppression of the activation of the peripheral immune compartment through inhibition of cytokine production and lymphocyte endothelial adhesiveness.

11582254 BIOSIS NO.: 199800362950

IFN-tau suppresses both the autoreactive humoral and cellular immune responses and induces stable remission in mice with chronic experimental allergic encephalomyelitis.

AUTHOR: Mujtaba Mustafa G(a); Streit Wolfgang J; Johnson Howard M

AUTHOR ADDRESS: (a)Dep. Microbiol. and Cell Sci., Univ. Florida, Build. 981, Room 1052, Gainesville, FL 32611\*\*USA

JOURNAL: Cellular Immunology 186 (2):p94-102 June 15, 1998

ISSN: 0008-8749

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

**ABSTRACT:** We have previously shown that interferon-T (IFN-tau) pretreatment inhibits the development of both acute and chronic mouse experimental allergic encephalomyelitis (EAE), an animal model for the **human** demyelinating disease **multiple sclerosis** (MS). IFN-tau is a type I IFN that has pregnancy recognition hormone activity in ruminants. Here, we show that IFN-tau induced remission in SJI/J mice that had ongoing chronic active EAE disease and protected mice against secondary relapses. IFN-tau treatment reversed lymphocyte infiltration and microglial activation in the central nervous system. Mice that were treated with IFN-tau had lower levels of anti-MBP antibodies than untreated mice in both chronic and acute forms of EAE. MBP induced proliferation in **B cells** from EAE mice, but treatment with IFN-T either in vivo or in vitro blocked activation. Furthermore, IFN-tau **inhibited** MBP activation of T cells from EAE mice. Thus, IFN-tau inhibits the humoral arm as well as the cellular arm of the autoimmune disease EAE. The data presented here show that IFN-tau **inhibits** both **B cell** and T cell responses in EAE as well as active, chronic EAE, and this may help explain the effectiveness of type I IFNs

07070005 EMBASE No: 1997351868

Antigen-specific therapies for the treatment of **multiple sclerosis**: A clinical trial update

Spack E.G.

E.G. Spack, Department of Immunology, Anergen Inc., 301 Penobscot Drive, Redwood City, CA 94063 United States

Expert Opinion on Investigational Drugs ( EXPERT OPIN. INVEST. DRUGS ) ( United Kingdom) 1997, 6/11 (1715-1727)

CODEN: EOIDE ISSN: 1354-3784

DOCUMENT TYPE: Journal; Review

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 75

Within the past year a host of antigen-specific therapies for **multiple sclerosis** (MS) progressed along the path from IND submission to FDA approval. The Immune Response Corp. vaccinated patients with a Vbeta6 peptide, demonstrating that the vaccine was immunogenic, well-tolerated and reduced the number of Vbeta6sup + T-cells in the cerebrospinal fluid (CSF). Connetics conducted a Phase I/II trial on chronic progressive MS patients vaccinated with CDR2 peptides from TCR Vbeta55.2 and found that patients with a measurable response to the vaccine remained clinically stable for a year. A study at the University of Alberta MS Patient Care and Research Clinic demonstrated that it. injection of a **B-cell/T-cell** epitope of myelin basic protein (MBP) **decreased** the level of anti-MBP antibody, but iv. administration did not **decrease** the relapse rate. AutoImmune completed a Phase III trial of oral myelin in the spring of 1997 which failed to show a statistical difference between those patients fed placebo and those fed daily capsules of myelin protein (Myoral). Three Phase I trials of iv. myelin antigen(s) were initiated: MP4 (Alexion Pharmaceuticals), a recombinant fusion of myelin basic protein and proteolipid protein; AG284 (Anergen), a solubilised HLA-DR2:MBP peptide complex; and NBI-5788 (Neurocrine Biosciences), an altered peptide ligand of an immunodominant MBP T-cell epitope. Following the conclusion of a successful Phase III clinical trial, TEVA Pharmaceutical Industries received FDA approval to market Copaxone (glatiramer acetate) for the treatment of relapsing-remitting MS in December of 1996 and launched the product in 1997. The recent preclinical research and clinical trial status of these antigen-specific MS therapeutics are summarised in this review.

25/7/8 (Item 8 from file: 5)  
DIALOG(R)File 5: Biosis Previews(R)  
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05648437 BIOSIS NO.: 000083121584

ADMINISTRATION OF MONTHLY-PULSE CYCLOPHOSPHAMIDE IN **MULTIPLE**  
**SCLEROSIS** PATIENTS EFFECTS OF LONG-TERM TREATMENT ON IMMUNOLOGIC  
PARAMETERS

AUTHOR: MOODY D J; KAGAN J; LIAO D; ELLISON G W; MYERS L W  
AUTHOR ADDRESS: IMMUNOLOGY LAB. M-523, DEPARTMENT OF LAB. MED., UCSF SCH.  
MED., SAN FRANCISCO, CALIF. 94143, U.S.A.  
JOURNAL: J NEUROIMMUNOL 14 (2). 1987. 161-174. 1987  
FULL JOURNAL NAME: Journal of Neuroimmunology  
CODEN: JNRID  
RECORD TYPE: Abstract  
LANGUAGE: ENGLISH

ABSTRACT: Eleven patients with chronic progressive **multiple**  
**sclerosis** received monthly pulses of cyclophosphamide (CY) for  
approximately one year. During the final 9 months the monthly dose ranged  
between 1000 mg/m<sup>2</sup> and 2000 mg/m<sup>2</sup>. This resulted in a marked (47% or  
greater) reduction in CD4 (T helper/inducer) cells, a less striking (22%)  
**decrease** in CD8 (T **suppressor**/cytotoxic) cells and a decline  
in the CD4/CD8 ratio. The magnitude of the **decrease** in CD4 cells  
correlated with the total dose received ( $r = 0.88$ ,  $P < 0.05$ ). **B**  
**cells** were reduced 50% and FcR+ lymphocytes were reduced 48%  
without comparable reduction in natural killer cells or **antibody**  
-dependent cellular cytotoxicity. Proliferative responses to PHA were  
**suppressed**. Two patients improved, seven stabilized and two  
continued to worsen. Monthly pulses of CY can achieve substantial and  
differential reduction in immune parameters and appear to slow the

05728828 BIOSIS NO.: 000084077234

FLUCTUATIONS OF T AND B-CELL SUBSETS IN BASIC PROTEIN-INDUCED EXPERIMENTAL  
ALLERGIC ENCEPHALOMYELITIS EAE IN LONG-TAILED MACAQUES

AUTHOR: ROSE L M; CLARK E A; HRUBY S; ALVORD E C JR

AUTHOR ADDRESS: DEP. MICROBIOL., UNIV. WASHINGTON SCH. MED., SEATTLE, WASH.  
98195.

JOURNAL: CLIN IMMUNOL IMMUNOPATHOL 44 (1). 1987. 93-106. 1987

FULL JOURNAL NAME: Clinical Immunology and Immunopathology

CODEN: CLIIA

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: Experimental allergic encephalomyelitis (EAE) was induced in long-tailed macaques (*Macaca fascicularis*) by inoculation of autologous myelin basic protein (BP) in complete Freund's adjuvant. Natural killer (NK) cell activity and lymphocyte subsets detected by one- and two-color immunofluorescence were monitored longitudinally in these animals. A decrease in NK cell activity was detected at the onset of clinically defined disease. During the preclinical phase of EAE (5-7 days before the onset of clinical signs) the absolute number of T helper (CD4+) and T **suppressor** (CD8+) cells in the peripheral blood **decreased** significantly. Analysis of peripheral blood **B cells** revealed a selective **depletion** of IgD+ **B cells** and a corresponding increase in the number of IgD- **B cells** prior to and during the onset of clinical signs. Total **B-cell** numbers were not significantly different between EAE and normal groups. The increased proportion of IgD- **B cells** in BP-sensitized animals corresponded with the appearance of high titers of circulating anti-BP **antibodies**. Thus two-color analysis of B-cell subsets may be a sensitive indicator of B-cell activation and of abnormal immune status in EAE. Changes in lymphocyte subsets in macaques with EAE are compared with

25/7/74 (Item 4 from file: 5)  
DIALOG(R)File 5: BIOSIS Previews(R)  
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09445519 BIOSIS NO.: 199497453889

Repeated treatment with chimeric anti-CD4 antibody in **multiple sclerosis**.

AUTHOR: Lindsey J W(a); Hodgkinson S; Mehta R; Mitchell D; Enzmann D; Steinman L

AUTHOR ADDRESS: (a)Dep. Neurol. Neurol. Sci., Room H3160, Stanford Univ. Med. Cent., Stanford, CA 94305\*\*USA

JOURNAL: Annals of Neurology 36 (2):p183-189 1994

ISSN: 0364-5134

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: We treated 21 **multiple sclerosis** patients with two to four doses of cM-T412, a chimeric monoclonal **antibody** against the CD4 antigen found on helper/inducer T lymphocytes. The mean number (+/- standard error) of circulating CD4 lymphocytes **decreased** from 888 (+/- 81) cells/mm<sup>3</sup> at baseline to 246 (+/- 18) after treatment. At 1 year after the last treatment, the CD4 count had recovered to only 335 (+/- 32). The **antibody** had no effect on CD8 lymphocytes, **B lymphocytes**, or other leukocytes. Side effects were minimal. Despite the prolonged **depletion** of CD4 lymphocytes, no opportunistic infections occurred. Only 1 patient had a possible allergic reaction. Most patients were clinically stable, but a few progressed. We conclude that repeated treatment with cM-T412 is effective in reducing the number of circulating CD4 lymphocytes and has no limiting side

Set	Items	Description
S1	60	(MULTIPLE(W)SCLEROSIS OR MS) (20N) (B(W)CELL? OR B(W)LYMPHOCYTE?) AND (INHIBIT? OR SUPPRESS? OR DELET? OR KILL?) (10N) (B(W)LYMPHOCYTE? OR B(W)CELL?)
S2	41	RD S1 (unique items)
S3	197	(MULTIPLE(W)SCLEROSIS OR MS) AND (INHIBIT? OR SUPPRESS? OR DELET? OR KILL? OR ANTAGONI?) (10N) (B(W)LYMPHOCYTE? OR B(W)CELL?)
S4	134	RD S3 (unique items)
?		

4/3/122 (Item 24 from file: 399)  
DIALOG(R)File 399:CA SEARCH(R)  
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129314955 CA: 129(24)314955q PATENT  
Inhibition of B-1 cell mediated immune conditions  
INVENTOR(AUTHOR): Askenase, Philip W.; Tsuji, Ryohei; Paliwal, Vipin;  
Kawikova, Ivana  
LOCATION: USA  
ASSIGNEE: Yale University  
PATENT: PCT International ; WO 9846255 A1 DATE: 19981022  
APPLICATION: WO 98US7535 (19980417) \*US 45234 (19970417)  
PAGES: 66 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A61K-038/20A;  
A61K-039/395B; G01N-033/53B DESIGNATED COUNTRIES: AU; CA; JP; US  
DESIGNATED REGIONAL: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT;  
LU; MC; NL; PT; SE

4/3/115 (Item 17 from file: 399)  
DIALOG(R)File 399:CA SEARCH(R)  
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133361915 CA: 133(26)361915u PATENT  
Treatment of autoimmune diseases with antagonists which bind to B cell  
surface markers  
INVENTOR(AUTHOR): Curd, John G.; Kunkel, Lori A.; Grillo-Lopez, Antonio  
J.

LOCATION: USA  
ASSIGNEE: Genentech, Inc.; Idec Pharmaceuticals, Inc.  
PATENT: PCT International ; WO 200067796 A1 DATE: 20001116  
APPLICATION: WO 2000US40018 (20000504) \*US PV133018 (19990507) \*US  
PV139621 (19990617)

PAGES: 34 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A61K-039/395A;  
A61P-037/00B; A61K-047/48B; C07K-016/28B DESIGNATED COUNTRIES: AE; AG; AL;  
AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CR; CU; CZ; DE; DK; DM; DZ;  
EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR;  
KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT;  
RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; TZ; UA; UG; UZ; VN; YU; ZA;  
ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS  
; MW; SD; SL; SZ; TZ; UG; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR;  
IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE;  
SN; TD; TG

4/3/56 (Item 3 from file: 73)  
DIALOG(R)File 73:EMBASE  
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11285610 EMBASE No: 2001295316

Prevention of experimental autoimmune encephalomyelitis in the common marmoset (*Callithrix jacchus*) using a chimeric **antagonist** monoclonal antibody against human CD40 is associated with altered **B cell** responses

Boon L.; Brok H.P.M.; Bauer J.; Ortiz-Buijsse A.; Schellekens M.M.; Ramdien-Murli S.; Blezer E.; Van Meurs M.; Ceuppens J.; De Boer M.; 'T Hart B.A.; Laman J.D.

Dr. J.D. Laman, Erasmus University Rotterdam, PO Box 1738, 3000 DR Rotterdam Netherlands

AUTHOR EMAIL: laman@immu.fgg.cucr.nl

Journal of Immunology ( J. IMMUNOL. ) (United States) 01 SEP 2001, 167/5 (2942-2949)

CODEN: JOIMA ISSN: 0022-1767

DOCUMENT TYPE: Journal ; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 32

2/7/40 (Item 2 from file: 399)  
DIALOG(R)File 399:CA SEARCH(R)  
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129314955 CA: 129(24)314955q PATENT  
Inhibition of B-1 cell mediated immune conditions  
INVENTOR(AUTHOR): Askenase, Philip W.; Tsuji, Ryohei; Paliwal, Vipin;  
Kawikova, Ivana  
LOCATION: USA  
ASSIGNEE: Yale University  
PATENT: PCT International ; WO 9846255 A1 DATE: 19981022  
APPLICATION: WO 98US7535 (19980417) \*US 45234 (19970417)  
PAGES: 66 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A61K-038/20A;  
A61K-039/395B; G01N-033/53B DESIGNATED COUNTRIES: AU; CA; JP; US  
DESIGNATED REGIONAL: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT;  
LU; MC; NL; PT; SE  
SECTION:  
CA215001 Immunochemistry  
IDENTIFIERS: B1 cell delayed type hypersensitivity inhibitor, monoclonal  
antibody C5a receptor interleukin 12  
DESCRIPTORS:  
Monoclonal antibodies...  
anti-C5a receptor; CD5+ B cells for identifying agent that inhibits T  
cell-dependent delayed type hypersensitivity or IgM-mediated immune  
conditions  
Antibodies...  
anti-IgM; CD5+ B cells for identifying agent that inhibits T  
cell-dependent delayed type hypersensitivity or IgM-mediated immune  
conditions  
Allergic asthma... Antigens... Autoimmune diseases... Complement... C5a  
receptor... Diabetes mellitus... Drugs... IgM... Immunoglobulin heavy  
chains... Interleukin 12... Multiple sclerosis... T cell(lymphocyte)...  
CD5+ B cells for identifying agent that inhibits T cell-dependent  
delayed type hypersensitivity or IgM-mediated immune conditions  
B cell(lymphocyte)...  
CD5+; CD5+ B cells for identifying agent that inhibits T cell-dependent  
delayed type hypersensitivity or IgM-mediated immune conditions  
Delayed hypersensitivity...  
T cell-dependent; CD5+ B cells for identifying agent that inhibits T  
cell-dependent delayed type hypersensitivity or IgM-mediated immune  
conditions  
CAS REGISTRY NUMBERS:  
80295-53-0 CD5+ B cells for identifying agent that inhibits T  
cell-dependent delayed type hypersensitivity or IgM-mediated immune  
conditions

2/7/41 (Item 3 from file: 399)  
DIALOG(R)File 399:CA SEARCH(R)  
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128074115 CA: 128(7)74115z JOURNAL  
Inhibition of the progression of multiple sclerosis by linomide is  
associated with upregulation of CD4+/CD45RO+ cells and downregulation of  
CD4+/CD45RO+ cells  
AUTHOR(S): Lehmann, Dan; Karussis, Dimitrios; Mizrachi-Koll, Rachel;  
Linde, Anders S.; Abramsky, Oded  
LOCATION: Department of Neurology and Laboratory of Neuroimmunology,  
Hadassah-Hebrew University Hospital, IL-91120, Jerusalem, Israel  
JOURNAL: Clin. Immunol. Immunopathol. DATE: 1997 VOLUME: 85 NUMBER: 2  
PAGES: 202-209 CODEN: CLIIAT ISSN: 0090-1229 LANGUAGE: English  
PUBLISHER: Academic  
SECTION:

12203482 BIOSIS NO.: 199900498331

CD80 (B7-1) and CD86 (B7-2) expression in **multiple sclerosis** patients: Clinical subtype specific variation in peripheral monocytes and **B cells** and lack of modulation by high dose methylprednisolone.

AUTHOR: Boylan M T(a); Crockard A D; McDonnell G V; Armstrong M A; Hawkins S A

AUTHOR ADDRESS: (a)Dept. Microbiology and Immunobiology, Queen's University of Belfast, Belfast\*\*UK

JOURNAL: Journal of the Neurological Sciences 167 (2):p79-89 Aug. 15, 1999

ISSN: 0022-510X

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

SUMMARY LANGUAGE: English

**ABSTRACT:** Autoimmune activation of T cells by central nervous system (CNS)-derived antigens is hypothesised to underlie neural damage in multiple sclerosis (MS) patients. The role of coreceptor mediated signalling is currently under investigation in order to further elucidate the immunopathogenic mechanisms implicated and to determine possible targets for immune modulation. We have investigated whether differential coreceptor (B7-1/CD80; B7-2/CD86; CD28) expression on circulating lymphocytes and monocytes is (i) a feature of distinctive clinical subtypes of MS (relapsing-remitting in remission/stable-RRMS; relapsing-remitting in relapse/relapsing-RRMS; primary progressive/PPMS), (ii) related to disease activity, and (iii) altered by high dose corticosteroid treatment. CD80+ B cells were significantly reduced ( $P < 0.05$ ) in PPMS ( $4.0 \pm 0.8\%$ ) compared with normal subjects (CON) ( $9.1 \pm 1.1\%$ ), stable-RRMS ( $6.7 \pm 0.7\%$ ) and relapsing-RRMS ( $7.8 \pm 0.9\%$ ) patients. Comparatively fewer monocytes from relapsing-RRMS patients expressed CD86 (relapsing-RRMS  $50 \pm 4.9\%$  vs. stable-RRMS  $75.1 \pm 3.4\%$ , PPMS  $77.7 \pm 3.2\%$ , CON  $72.1 \pm 3.6\%$ ;  $P < 0.05$ ). Otherwise expression of coreceptors did not vary significantly between the groups. A 3-day course of methylprednisolone therapy did not alter coreceptor expression, but did **suppress** monocyte and **B cell** HLA-DR expression. There is evidence for differential coreceptor expression on circulating **B cells** and monocytes in **MS** disease subtypes. The biological significance of these findings is discussed in relation to alternative theories regarding coreceptor functioning.

CA215005 Immunochemistry

CA201XXX Pharmacology

CA214XXX Mammalian Pathological Biochemistry

IDENTIFIERS: linomide multiple sclerosis immunomodulation CD45RA CD45RO,  
T cell CD4 multiple sclerosis linomide

DESCRIPTORS:

B cell(lymphocyte)...

CD5+; linomide inhibition of multiple sclerosis progression assocd.  
with CD4+/CD45RA+ cell upregulation and CD4+/CD45RO+ cell  
downregulation

Anti-multiple sclerosis agents... Brain lesion... Cerebrospinal fluid...

Immunomodulators... Interferon .gamma.... Interleukin 1.beta....

Interleukin 10... Interleukin 2 receptors... Interleukin 2... Interleukin 4

... Interleukin 6... Memory T cell... Natural killer cell... Serum(blood)

... Tumor necrosis factor .alpha....

linomide inhibition of multiple sclerosis progression assocd. with  
CD4+/CD45RA+ cell upregulation and CD4+/CD45RO+ cell downregulation

CD4-positive T cell...

subtypes; linomide inhibition of multiple sclerosis progression assocd.  
with CD4+/CD45RA+ cell upregulation and CD4+/CD45RO+ cell  
downregulation

CAS REGISTRY NUMBERS:

84088-42-6 linomide inhibition of multiple sclerosis progression assocd.  
with CD4+/CD45RA+ cell upregulation and CD4+/CD45RO+ cell  
downregulation

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